

**Document #488 Sakrison, Dave City of Moab, Mayor**

February 18, 2005  
City of Moab Comments  
Atlas Tailings Pile  
DOE EIS 2005

**I Removing Dangerous Materials from the Flood Plains of the Colorado River.**

“Storage of highly volatile, toxic or reactive materials” in an area that has “even a slight chance of flooding” *is prohibited*. This is Department of Energy’s (DOE) interpretation of the federal code at 10 CFR 1002.4 (Compliance with Floodplain/Wetlands Environmental Review). This regulation was implemented to protect people and environments from the harmful effects of imprudent actions within designated floodplains and wetlands. The Atlas Tailings Pile contains “highly volatile, toxic and reactive material” and is located in a recognized floodplain. The current Environmental Impact Statement, as written, denigrates the possibility of polluting the Colorado River should the tailings pile be kept in place. DOE’s experience with other similarly located tailings piles in the area, at Monticello and Green River, should be followed. The failure to contain these two smaller tailings piles on porous substructures without protective sub-layers required DOE’s to eventually move both piles after having first attempted to contain them on site. These previous failures challenge DOE’s assertion that the integrity of the Colorado River can be protected by leaving the Atlas Tailings Pile in place.

Federal regulations also require DOE to consider the possibility and consequences of long-term or catastrophic flooding of the Atlas Tailings Pile. Long-term flooding might arise from river migration or subsidence. DOE argues that the first, river migration, has tended south to southeast because of the rapid dissolution and collapse of the Paradox Formation in that direction. Independent geologists and the Utah State Geological Service challenge this assertion by correctly orientating the historical flood maps to show that the Colorado River has migrated north, northwest and southeast away from Moab and towards the tailings pile. This is the very pattern one would expect from the current meandering pattern of the river. It is the north tending arch of the river, propelled by heavy sediment loads, that creates a long-term threat to the integrity of the north bank on which the tailings pile is located. Geological records reasonably describe a river that moves sinuously and forcefully, back and forth between the portals, inherently threatening the integrity of the tailings pile. Legacy Management, the bureaucracy created by DOE to monitor and solve for the next 1000 years, perceived threats to the integrity of the tailings pile, can not be reasonably argued given the length of time and inconsistency of federal bureaucracies and budgets. DOE’s commitment to protecting the tailings pile in a flood plain has little if any historical substance. Even if such a commitment were imaginable, one thousand years is but a fraction of the time needed to mitigate the site’s long-term pollution potential.

What is the possibility that a catastrophic flood might occur during the “legal” lifetime of the radioactive danger? The “probability” of such catastrophic flood limits “the storage of highly volatile, toxic or water reactive materials” in a floodplain. A 100 year flood of

99,500 cu ft covers the flood plain up to 2' on the tailing pile and has a 1% chance of occurrence. A 500 year flood of 123,500 cu ft could reach 27' up onto the pile. The maximum flood considered by DOE was a 10 hour, 150,000 cu ft flow which is ½ of the Probable Maximum Flood (PMF) considered by the Nuclear Regulatory Commission for the Moab site (1999 EIS). With half the volume and force of a PMF, 20 to 80 percent of the tailings pile could wash into the river. The fact that a 100 or 500 year flood event has not occurred historically does not eliminate the probability of such an event. A scenario can be constructed where significant precipitation events in the 21,100 sq miles of up-stream Colorado drainage could cause the collapse of one or both of the up-stream dams. Repeated "precipitation events" could have catastrophic impacts on the tailing pile, protected or not. It has become politically inappropriate to infer the effects that global warming might have on localized weather events. However, the Glen Canyon Dam was almost breached by the floods of the early 80's. The storms of 2005 have shown their "locally" destructive nature across the Southwest.

Using historical flood data may in the uncertain future become outdated, even dangerous if probability for catastrophic floods is thereby limited. The "Probable Maximum Flood" while having a statistically low possibility could happen even within the 1000 years of legally required protection window. The USGS study indicates that there may have been at least two floods in the last 800 years that could have washed the entire tailings pile into the river. Similar subsurface gravel bed elevations and the indication of past river channels under the tailings pile substantiate the definition of "probability". Given these arguments of at the least, "the slight possibility" of structural failure, DOE is mandated by the 10 CFR 1033.4, to *prohibit* (DOE's own words) the continued storage of "highly volatile, toxic or radioactive materials" on the floodplain of the Colorado River. To take any other action is irresponsible and dangerous.

## **2 Socioeconomic Factors of Capping the Atlas Tailings Pile in Place.**

This EIS focuses solely on the economic benefits derived from revenues generated by the preparation of storage sites and/or the transportation modes used to move the tailings. The economic benefits of the various alternatives are economically significant and would temporarily improve the economy of Moab. However, what are blatantly lacking in the EIS are the negative socioeconomic consequences of capping the tailings pile on the banks of the Colorado River. Previous paragraphs outlined the probability of long-term or a catastrophic flood would have on the integrity of the tailings pile. That such events would have significant impact on Moab's future recreational viability is a given. It is also important to point out that the enshrinement of a radioactive monstrosity at the entrance to Moab would of itself remind residents and visitors alike that it only a matter of time before the pile could be swept into the river. All those who travel 191 would be impressed with the vision of a 130 acre, 97 ft tall geometrical monolith dedicated to the storage of radioactive waste. It would be an inappropriate historical marker for the thousands of miners who have suffered and continue to suffer the effects of radioactive poisoning. Not only would the tailings pile violate Bureau of Land Management river corridor visual guidelines, it would intimidate future recreational users of the Colorado River. The future economy of Moab, dependent on tourism and recreation, would thereby suffer the long-term consequences of an enshrined radioactive catastrophe waiting to happen. Leaving the pile as a constant reminder, is a slap in the face of a community who

willing did the “dirty” work of supplying necessary uranium to a Nation threatened by nuclear war. The appropriate response by DOE is to act now to remove the Atlas Tailings Pile.

### **III White Mesa Mill Disposal Alternative**

The City of Moab is strongly opposed to moving the tailing pile through the City by truck or slurry pipeline. Downtown Moab is classified by the Utah Department of Transportation as a very congested area. The additional 275% increase in downtown truck traffic from 642 to 1,458 trucks, even when spread over a 20 hour day, would create a dangerous situation. Construction of a slurry line would remove much of the truck traffic but it would not eliminate it entirely. 100,000 tons of radioactive materials would still have to continue to travel through downtown Moab. A slurry line would have to be constructed along an already heavily used utility easement. This easement already contains highly volatile gases. Given the type of slurry material to be transported, the possibility of radioactive leaks or breaks is too high. The risk of exposure by truck or slurry accidents is unacceptable.

The route of the proposed slurry corridor would place the line beneath the Colorado River and through protected wetlands. The 430 acres of pipeline disturbance needed to reach the White Mesa Mill site would have adverse impacts on previously revegetated areas. The 28.7 miles of new right of way would also have negative impacts on the environment. Wetland areas could be compromised, and endangered species threatened. There is an estimated 51 to 101 cultural sites along the slurry route that would be affected in addition to the 5 potential cultural sites at White Mesa itself. Surface and ground water are also threatened by the storage of the tailings at this site. The prudent federal action is to not unnecessarily endanger the residents of Moab or the surrounding environment by moving the tailings south to the White Mesa Mill for disposal and profit.

Thank you for considering our concerns on the need to move the Atlas Tailings Pile from the banks of the Colorado River.

Dave Sakrison, Mayor  
City of Moab

Document #504 Suarez, Michael K. Individual

#504

**Michael K. Suarez P.O. Box 1186 Moab, UT 84532-1186 435-259-8317 mangotea@frontiernet.net**

February 14, 2005

Moab DEIS Comments  
US Department of Energy  
2597 B ¼ Road  
Grand Junction, CO 81503

Re: Remediation of the Moab Uranium Mill Tailings

Gentlefolk,

**Please safely move the Moab mill tailings pile, by rail, to Crescent Junction.**

The pile cannot be capped in place. The tailings are leaking toxic hazardous materials into the Colorado River. They threaten to contaminate the Matheson wetlands. If floodwaters reach the pile, the Colorado River will be contaminated by those tailings, endangering those who rely on the river for drinking water and recreation. The worse the flood, the greater will be the contamination.

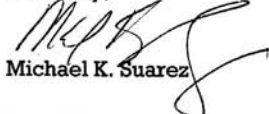
The Department of Energy (DOE) studies and conclusions concerning the tailings pile are fatally flawed. In spite of all contrary evidence, DOE concludes the river is migrating away from the pile; actually, it is migrating towards the pile. DOE's assessment, limited in scope, contains other unsubstantiated assumptions. Flaws in the report have been noted in articles by Dr. John Dohrenwend, published in the Moab Times-Independent on January 27, February 3 and February 10, 2005. His conclusions and supporting evidence are also contained in his "Preliminary Review of the Department of Energy's Assessment of Potential Flood Hazards at the Moab Project Site (Atlas Tailings Pile)". His e-mail address is [dohrenwend@rkymtnhi.com](mailto:dohrenwend@rkymtnhi.com).

Remediation of the pile must not be done "on the cheap" by, for example, leaving the pile in place or moving it in a manner which allows dust from the pile to be dispersed into the air that Moab's citizens breathe. Remediation in a manner dangerous to us, just because it's cheaper, masks the real costs of uranium mining and misleads citizens facing mining operations in their communities.

Crescent Junction storage puts the pile at the location furthest from human activity. It would also be cheaper than a slurry pipeline to White Mesa.

Thank you for your time, attention and consideration.

Sincerely,



Michael K. Suarez

Cc: U.S. Senator Hatch, U.S. Senator Bennett, U.S. Rep. Matheson, Gov. Huntsman, State Sen. Dmitrich, State Rep. Mathis, State Rep. King

Document #505 Suarez, Mary Individual

#505

MARY SUAREZ

P. O. Box 1186  
Moab, UT, 84532-1186  
(435)259-8317  
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Moab DEIS Comments  
US Department of Energy  
2597 B ¼ Road  
Grand Junction, CO 81503

Re: Remediation of the Moab Uranium Mill Tailings

Dear Sirs,

I am a Moab resident. My husband and I moved here to retire and plan to live here the rest of our lives. We are very concerned about what happens to the mill tailings not only for our selves but for the young families and children who live in Moab.

**The Moab mill tailings have been a serious problem for many years. We cannot delay; the tailings must be moved now to Crescent Junction by rail.**

There are many flaws in the DOE report regarding the river migration which undermine the safety of leaving the pile where it is.

There is no mention of a near certain flood along the Colorado River (2002 National Research Council report) and the catastrophic effects that would cause. The damage to people and communities not only in Moab but all the way down stream would be catastrophic if this uranium pile is washed into the river. The contamination would cause the entire river to be closed off for generations. This would affect 25 million people living in Utah, Nevada, Arizona and California.

As a resident of Moab I am concerned about the current contamination of ground water which affect us now and everyone else down stream.

Mill tailings have been moved from Grand Junction, Rifle and Durango because they were close to a river. Now is the time to move the Moab pile.

**The residents of Moab need to know that enough money will be put into the moving of this pile to mitigate blowing contaminated dust into our community during the move.**

We expect and deserve action now.

Yours truly,



Mary Suarez

Cc: Senator Hatch, Senator Bennett, Rep. Matheson, Governor Huntsman, Senator Dmitrich, Rep. Mathis, Rep. King

**Document #515 Millard, Charles Individual**

**From:** Chuck & Cheryl [cherylannmillard@netzero.net]

**Sent:** Wednesday, February 16, 2005 4:02 PM

**To:** moabcomments

**Subject:** Don't Drink The Water

As a certified HAZWHOPPER First Responder & D.O.T. Certificate holder since 1993, Receipt #30194, I was most interested in responding in regards to the SUPERFUND site at Moab, Utah. I think what struck me first, was the photograph the San Diego Union ran of the site on 2/13/05. If this is representative of the conditions at the stockpile area today, I think it would be even harder to delay site remediation. There seems to be a lack of even the most fundamental controls in place to provide containment, and even less in place to prevent intrusion by the river, only 750 feet away.

It was only after a long hard lessons did we learn of the dangers our own careless disposal of wastes during our countries nuclear programs. These learned lessons would become realized with the SUPERFUND creation and 29 CFR regulations that followed. The most important sites slated for remediation always included the same important factors, containment and groundwater sources, along with the obvious health dangers to vast areas having contaminated water supplies for years to come. Savanna River Project sat on a aquifer that was the water supply of many southern states that had no idea that a site so far away would affect them or their health. Hanford, on the Columbia River, contaminated God knows how many lives and trillions and trillions of gallons of water, the effects to be learned only after hundreds of years of studies. The Rocky Mountain Flats site had material that escaped containment that wasn't detected until the barrels that were to be moved were found to be empty and the groundwater in the area is still contaminated and will be for years to come. We all remember Love Canal and the terrible price paid by citizens who had no idea of what was in their back yards. Yet today, we seem to sit here and ignore these lessons and continue to pollute the things that are in fact, the very essence of life on this planet. Water is what makes Earth different from all other known planets in our solar system. It is the reason for life being here, period.

The reason for delaying action at this site can only be classified as gross negligence. The only other reason being gross ignorance. Any person with the least bit of training or experience knows the guidelines are clear. The SUPERFUND mandates are very precise on what must be done at this site. There has been a Presidential order to your Department to remove the stockpile and remediation of the groundwater. I really don't understand why we are waiting for some, as yet, unappointed undersecretary of the Department of Energy to make a decision that has already been made time and time again. Further delays, lack of funding by the current administration, leaving the pile in place, would all constitute violations of the law. These laws were enacted to protect both the people and the resources that are placed under your Departments control.

To close, I see the option of transporting the waste to a mill to dispose of the waste in a pipeline as the safest, most responsible means of correcting the problem. Putting trucks on our highways laden with these compounds to go bury them some place else seems very shortsighted and unacceptable. After all, there is no reason to delay action further. Get the funding required to accomplice the task at hand, and GET IT DONE ! Or maybe you would like to drink the water from this irreplaceable source that so many of us depend on.

Charles Millard  
San Diego, Calif

**Document #527 Tielens, Arthur J.     A.J. Tielens and Associates**

#527, pl

A.J. Tielens & Associates Extractive Metallurgy

U.S. Department of Energy  
Moab DEIS Comments

Grand Junction 2597 B3/4 Road  
Grand Junction, CO 81503

Arthur J. Tielens  
Consulting Engineer

P.O. Box 28388  
San Diego, Ca 92198

14 February 2005

Re: 130 Acres of Toxic Waste Located at 750 Ft from the Colorado River, near Moab, Utah, as described in the "San Diego Union" of 13 February 2005.

Dear Madam, Dear Sir,

According to above captioned article in the San Diego newspaper, the public is invited to comment as to how the Department of Energy should deal with the toxic metallurgical waste deposit

Apparently, two past proposals have recommended to dig up the waste pile and relocate the waste material some 30 miles away, at an area where ground water pollution could be (largely) prevented by placing a synthetic liner. In such case, pumping the waste material would likely be more economical than trucking, assuming the toxic material has thixotropic properties which is usual the case when handling metallurgical waste material. Obviously, the drainage of the displaced material must be dealt with since it will contain toxic chemicals. To minimize drainage, the deposited waste could be treated with burnt lime. Economics will decide the practicality of this approach. These two proposals will eliminate the danger of further contaminating the Colorado river.

The third option recommends to pipe the waste material to a milling operation where the radio active component would be removed. In such case, the remaining toxic waste has to be dealt with and a "new" totally enclosed waste

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A.J. Tielens & Associates Extractive Metallurgy

disposal system must be put into place, in accordance with the environmental rules and regulations. This proposal has also the advantage of not further contaminating the Colorado River.

The fourth option would be to cover the waste pile with an adequate thick layer of impervious clay. It can be assumed that in such case precipitation will not penetrate the pile to a great extent and that it can be removed from the pile by a proper drainage system.

However, this fourth proposal has the following disadvantages.

- Drainage of toxic compounds (inside the pile) will continue polluting the ground water. It is not known as to the magnitude of such ground water pollution as the News Article does not indicate whether the original disposal site has been provided with a synthetic or clay seal, nor gives the News Article information on the design of the drainage system.
- The pile is close to the Colorado River and heavy river flooding could entrain the toxic materials into the river water, with disastrous consequences.

Relocating the toxic waste some 750 feet further from the river may prevent such a scenario. However the cost may not be appreciably below the cost of removing and relocating the waste deposit elsewhere to an area where precipitation is low and control of precipitation drainage can be optimized.

From the environmental viewpoint, my conclusion would be to remove the waste pile as given in case 1, 2 or 3. However, it should be emphasized that scant information is available to the undersigned so that a final recommendation cannot be given as to the optimum method to deal with the toxic deposit.

The following information is needed to give a final recommendation:

1. Detail chemical analysis of the toxic waste
2. Detail physical analysis of the metallurgical waste, such as particle size distribution, permeability and thixotropic characteristics of the deposited waste.
3. Temperature, precipitation and evaporation data at site, average monthly, daily and duration of maximum intensity.
4. Location of water table
5. Wind velocities, monthly average, daily maximum and its maximum duration
6. Earth quake conditions at site
7. Availability of nearby impervious clay material



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A.J. Tielens & Associates Extractive Metallurgy

8. A visit to the present and future waste disposal sites

The undersigned has extensive experience in the design and operation of toxic metallurgical waste disposal systems, in North and South Americas, Europe, the Middle East, India and Australia and is at your disposal for arriving at the optimum economic and environmental decision as to dealing with the described toxic waste pile at Moab, Co.

Sincerely yours,

A handwritten signature in cursive script that reads "Arthur J. Tielens". The signature is written in dark ink and is positioned above a horizontal line.

Arthur J. Tielens.

Tel. (858) 673-1935  
E-mail. atielens@san.rr.com

Document #535 Moran, Mary Individual

#535, p1

Moab DEIS Comments  
U.S.D.O.E., Grand Junction  
2597 B ¼ Road  
Grand Junction, CO 81503

February 15, 2005

I have attended some of the scoping meetings, public hearings, and the National Research Council meetings in Moab since 1991 concerning the fate of the Atlas/Moab Tailings pile. I've written letters before and commented in the National Research Council meetings. I now submit these comments on the draft EIS. My basic advice is to move the pile, move it north, and move it now.

The proposal to ship wastes to the White Mesa site is not only the most expensive, it is ridiculous to think of imposing this on the White Mesa Ute Tribe, ridiculous to think of using the Colorado River's over-allocated water to slurry the waste across or under the Colorado River, through The Nature Conservancy wetlands and the town of Moab (both of which would fight it intensely, which I don't believe is mentioned in the DEIS) and then on for another 80 miles to the disposal site.

Most of my comments in this letter will concern a few of the many, many reasons that the alternative for capping the pile in place is a bad one. But first, I have a general comment. The DEIS quoted one part of the Floyd Spence Act, passed by Congress in 1999, saying that the "DOE prepare a remediation plan to evaluate the costs, benefits, and risks associated with various remediation alternatives." But they didn't mention the part of the act that said that the pile was to be moved off site. Here is the language:

"Remediation—Subject to the availability of appropriations for this purpose, the Secretary shall conduct remediation at the Moab site in a safe and environmentally sound manner that takes into consideration the remedial action plan prepared pursuant to section 3405 (i) of the Strom Thurmond National Defense Authorization Act for fiscal Year 1999 (10 U.S.C. 7420 note; Public Law 105-261), including—

- (A) *ground water restoration; and*  
(B) *the removal, to a site in the State of Utah, for permanent disposition and any necessary stabilization, of residual radioactive material and other contaminated material from the Moab site and the floodplain of the Colorado River.*" (emphasis added)

What could possibly be DOE's reasoning for not including this directive? Most other uranium mill tailings piles have been moved. In fact, all of those in river floodplains except for the largest one on the largest wildest river have been moved. And that is the tailings pile that this DEIS addresses.

Though there are many reasons that capping the pile makes no sense, I will concentrate on the following few:

1. Possibility of a flood event transporting substantial amount of tailings into the river;

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2. Effects of a large amount of tailings in the river on the people of Moab and the 26 million people downstream, as well as ecosystem effects;
3. Possibility of channel migration toward the pile (probably in a flood event so not really a separate issue);
4. Lack of insight into time scales involved.

1. The DEIS concludes that the pile is unlikely to flood in the next 200 years, other than possible slow overbank waters touching the nearest toe of the pile (as happened in 1984, at a 70,000 cfs flow). At the recent public meeting in Moab, and in analysis by geologist John Dohrenwend and other experts, numerous reasons for disagreement with the DOE analysis of the likelihood of flooding were laid out, and I will not repeat them all here.

One factor I didn't hear addressed at the meetings or in my look at the DEIS is the possibility of a dam failure upstream. Most of the time the upstream dams, especially Blue Mesa and Morrow Point Dams on the Gunnison River and McPhee on the Dolores River, but also the many small dams on all tributaries upstream, probably decrease the magnitude of snowmelt high flows on the Colorado River. They're not giant dams and they're a long ways upstream, so might not influence the floods tremendously, but there is some influence. However, dams upstream mean that there is the potential for dam failure upstream.

Consider Glen Canyon Dam in the late spring of 1983. The flow of the Colorado River in Grand Canyon just downstream of that giant dam had had much smaller seasonal highs since the dam went in twenty years earlier. Flow was largely controlled by power demands. But that spring the reservoir behind the dam was almost full, the mountains had an unusually high snowpack, and then there was a regional warm spell with a bunch of rain. Perhaps dam managers have learned from almost losing this dam that year to keep more room in the reservoirs for the vagaries of spring snowmelt. And perhaps not. In 1983, when Glen Canyon Dam was shaking, the spillway outlets were spewing out red sand and house-size boulders coming from the bedrock below the dam, and the river was flowing almost 100,000 cfs in an effort to get rid of water before it rose over the top of the dam, we saw the unpredictability of what can happen with a river. If that dam had gone, Hoover Dam and every dam downstream would have gone with it, not to mention the people living along the river from Glen Canyon Dam to the Colorado River Delta in Mexico.

The dams on the Dolores and Gunnison aren't as big as Glen Canyon, but if the upper Gunnison dam went, the next one downstream would go, and that would generate a bigger flood than nature could have done on its own before dams came into play.

The DOE person responsible for choosing the preferred alternative should take a long and close look at the historic photos of the 1917 flood in the Moab Valley, when the Colorado River flowed at 76,000 cfs. They should be sure to compare the limits of the flooded area with a present-day map or photo of Moab. They should think about the much larger flood in 1884, when the river flowed at approximately 125,000 cfs. Then they should think carefully about the unpredictable nature of floods on this river, the dams upstream, and

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the fate of the town of Moab and the 26 million people downstream who use the water. Unfortunately, the DEIS has misleading discussion about the likelihood of a large flood, and ignores some factors that could add to the likelihood. And the key is that if there is ANY possibility of flooding the pile in the next 1000 years, the pile should be moved.

2) The DEIS downplays the impacts that a large flood event would have on the town of Moab and on the 26 million people downstream.

The DEIS assumes that contaminants would wash downstream of Moab and disperse to safe levels relatively quickly, and that there would be no issues downstream beyond Lake Powell. But various toxins attach themselves to silt or clay particles, or exist in heavier compounds, and disperse differentially, thus settling out and concentrating in specific settings, such as backwaters along the river or the deeps of Lake Powell. We simply do not know enough to be able to predict where different toxic substances would concentrate, or how far downstream they might disperse.

If a flood inundates the pile, it will probably inundate the Matheson Wetlands across the river, and perhaps parts of Moab adjoining the wetlands. If some of the toxic materials make it across the river, and fine clays concentrated with toxic compounds settle out, what will be the short-term and long-term health and economic effects on the people of Moab? Will they have to be re-settled elsewhere while the valley is decontaminated over a number of years? The DEIS does not address this scenario.

The DEIS assumes that in the case of a flood breach to the pile, the contaminants won't go beyond Lake Powell, and since all there is in between Moab and Lake Powell is a 110-mile river canyon with no people living there, that no humans would be impacted. First of all, this stretch is a gorgeous river canyon largely within Canyonlands National Park, home to a complex ecosystem of wildlife and plants including endangered fish that depend on the river, and home to a multi-million dollar per year river rafting industry. Second, it isn't clear what vision the preparers of the DEIS had of Lake Powell over the next 200-1000 years or beyond. Did their modeling assume a static Lake Powell of 20 years ago, filled to the brim, or the current Lake Powell, half empty due to drought but containing much more sediment fill from the river inputs of the intervening years? Or did they model change in Lake Powell over the years, and its eventual demise when it fills with sediment? Lake Powell is definitely not a permanent entity, and the toxins in the waste will outlive the reservoir by orders of magnitude.

Most of the 26 million people downstream who use the water live in southern California. Some live in the Imperial Valley and irrigate food crops sold all over the U.S. with Colorado River water. Some water users are over the border in Mexico, where the last of the Colorado River is used up in agricultural fields. The US is required to deliver a given amount of water of a certain quality to Mexico each year. Back in the early 1990s, the water was too salty by the time it reached the border, so the US government installed a desalinization plant near the border in Yuma, which cost \$280 million at the time. (It was closed down after nine months because of design flaws.) What will it cost us to clean up the water if the tailings pile ends up going this far downstream?

#535, p4

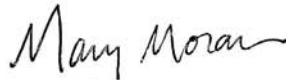
3) The DEIS concludes that the river is most likely to move to the south if its course changes, but this conclusion seems erroneous. It seems entirely possible that the river channel could migrate toward the pile in the next 200 to 1000 years. It also seems possible that it may migrate away from it. And it seems most likely, at least on the 1000-year time scale, that it will do both, because that is what rivers do when they are not constrained between canyon walls. There is evidence in the coarse cobbles in boreholes below the pile that the river was once there.

4) Time scales seem poorly considered in the DEIS. First of all, many of the toxins have half lives such that they will have seen little change 200 to 1000 years from now. And why do we disregard human and other life in a time frame as short as 200 years from now anyway?

But the DEIS doesn't even seem to fully consider the 200 to 1000 year time frame. What effect will global warming have on flood cycles? Will Lake Powell still be in place? Does the likelihood of dam failure upstream increase as these dams age? Are more dams likely to be built, and would this make dam failure even more likely? How many people might be living in the Moab Valley, and how likely is it that they will be drawing water from the river?

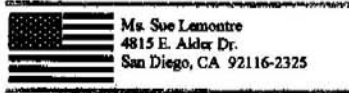
Certainly it would have been difficult for the Anasazi to imagine life as it is in the Moab Valley 1000 years after they lived here, and likewise we cannot fully imagine what life will be like here in 1000 years. But the point is, if we cannot imagine it, and we are mandated to manage the wastes for such a period, then we must do the safest thing: Move the pile out of the flood plain to a safer location. Don't cap it in place and then have to dig it up and move it later; do it right, now.

Mary Moran  
471 Loveridge Drive  
Moab, UT 84532  
marymoran@sisna.com



Document #536 LeMontre, Sue Individual

#536



2-13-05

Moab DEIS Comments: -

If this pile is as large as is publicized, how feasible would it be to bring a commercial mill to Moab in order to dispose of the pile? It could be cheaper to bring the mill to the mountain than to set up a pipeline to move the pile.

Apparently it has already cost 2 billion to move 22 other piles around the country. What would it cost to have a PORTABLE mill which could be moved to the site, such as a crematorium?

Sincerely,

Sue LeMontre

**Document #537 Maia, Maia Individual**

From: Maia Maia [Maia3@rain.org]  
Sent: Wednesday, February 16, 2005 4:22 PM  
To: moabcomments  
Subject: Help move a toxic waste site away from the Colorado River

February 16, 2005

Moab DEIS Comments  
U.S. Department of Energy Grand Junction  
2597 B3/4 Road  
Grand Junction, CO 81503

Attention Moab DEIS Comments:

RE: DOE/EIS - 0355D

What we need is a completely new Environmental Impact Statement to address the full reclamation of 12 million tons of uranium wastes that are, each and every day, contaminating the Colorado River near Moab, Utah.

This new EIS should strongly reject the idea of capping the radioactive waste on the bank of the Colorado River, and should instead recommend moving the waste to one of two nearby Utah sites - Klondike or Crescent Junction.

IT IS SIMPLY NOT ACCEPTABLE TO LEAVE 12 MILLION TONS OF MILL WASTE TO LEAK INTO THE COLORADO RIVER WHERE IT IS ALMOST CERTAIN TO BE INUNDATED BY FLOODS, THUS CONTAMINATING THE WATER CITIZENS AND FARMERS REQUIRE FOR LIFE AND HEALTH.

Away from the Colorado River, the Klondike and Crescent Junction sites are in extremely stable, isolated areas that meet all the criteria for long-term disposal of radioactive wastes.

EVERY SAVINGS FROM RESORTING TO CAPPING WILL BE OFFSET BY THE MUCH GREATER COSTS OF CONTAINMENT- FAILURE AND CLEANUP.

Please consider this vital decision carefully. Thank you.

Sincerely,

Maia Maia  
332 Ellwood Beach Dr Apt 9  
Goleta, CA 93117-2702  
USA  
Maia3@rain.org

**Document #539 Rivera, Madeline Individual**

From: Madeline Rivera [madelinx@yahoo.com]  
Sent: Wednesday, February 16, 2005 2:02 PM  
To: moabcomments  
Subject: Help move a toxic waste site away from the Colorado River

February 16, 2005

Moab DEIS Comments  
U.S. Department of Energy Grand Junction  
2597 B3/4 Road  
Grand Junction, CO 81503

Attention Moab DEIS Comments:

RE: DOE/EIS - 0355D

As a citizen who relies on the Colorado River for drinking water, I am extremely concerned about an accident waiting to happen. I urge you to prepare a new Environmental Impact Statement (EIS) for the final reclamation of 12 million tons of uranium wastes that are contaminating the Colorado River near Moab, Utah.

The radioactive wastes are now located in an unlined pile within the floodplain of the river and are leaking approximately 12,000-15,000 gallons per day of intensely contaminated fluids into an underground aquifer that immediately discharges into the river. This site fails every test for an appropriate site, since it does not provide long-term isolation from the human and natural environment below ground that will endure without the need for ongoing maintenance.

I urge you to prepare a new EIS that (1) dismisses the alternative of capping the radioactive waste at its current site on the bank of the Colorado River, and (2) instead identifies a preferred alternative of moving the waste to one of two nearby Utah sites - Klondike or Crescent Junction. These sites are in extremely stable, isolated areas that meet all the criteria for long-term disposal of radioactive wastes.  
Thank you for your consideration.

Sincerely,

Madeline Rivera  
600 W Orange Grove Rd  
Tucson, AZ 85704-5643  
USA  
madelinx@yahoo.com